

A new species of brush finch (Emberizidae: *Atlapetes*) from the northern Central Andes of Colombia

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Brush finches *Atlapetes* are Neotropical passerines which achieve greatest diversity in the Andes and whose taxonomy and ecology have received considerable recent attention. Several species are restricted to particular elevations, mountains or slopes (Remsen & Graves 1995). Even recently, *Atlapetes* taxa new to science have been described (Fitzpatrick 1980, Remsen 1993, Valqui & Fjeldså 1999, Donegan & Huertas 2006), and one species thought possibly extinct was rediscovered (Agreda *et al.* 1999). Other populations, such as those in the Serranía de Perijá (Donegan & Huertas 2006) and *A. tricolor* taxa (García-Moreno & Fjeldså 1999), demand further study.

The Central Andes is the oldest and highest of Colombia's three principal Andean ranges and a major centre of avian endemism (Stattersfield *et al.* 1998). During the 19th and 20th centuries, several bird collectors were active in this cordillera, particularly near Colombia's second-largest city, Medellín, and the coffee-growing region around Manizales and Pereira. Such collectors (per Cuervo *et al.* 2001) included: T. K. Salmon (1872–78: Sclater & Salvin 1879), M. A. Carriker (1941–53: see Graves 1988, 1997), K. von Sneider (1938–52: Fjeldså & Krabbe 1990), M. A. Serna (1971–91: Sociedad Antioqueña de Ornitología [SAO] 2003) and participants of several American Museum of Natural History expeditions (Chapman 1917). Over the last decade, the northern Central Andes has been a focus for ornithological research and conservation efforts, due to the activities of SAO members, research and collecting efforts led by T. Cuádro, A. M. Cuervo *et al.* at the Universidad de Antioquia (e.g. Cuervo *et al.* 2005), and expeditions and conservation work by Fundación ProAves (e.g. Salaman *et al.* 2002, Quevedo *et al.* 2006, Salaman *et al.* 2007b), amongst others. The Central Andes have yielded several new bird species in recent years (Robbins *et al.* 1994, Graves 1997, Cuervo *et al.* 2005, Krabbe *et al.* 2005), including one found to date only in the northernmost section in dpto. Antioquia (Cuervo *et al.* 2001), with a further taxon from the same region awaiting formal description (*cf.* Salaman *et al.* 2007a).

Methods

In 2004–05, during research for the description of *Atlapetes latinuchus yariguierum* (Donegan & Huertas 2006), I inspected specimens of all Colombian *Atlapetes* in various South American and European collections, including all *A. schistaceus* taxa in the following institutions: Instituto de Ciencias Naturales, Universidad Nacional, Bogotá (ICN); Instituto Alexander von Humboldt, Villa de Leyva (IAvH); Museo de

la Universidad de la Salle, Bogotá (MLS); Museo de Historia Natural, Universidad Industrial de Santander, Bucaramanga (UIS); the Phelps Collection, Caracas (COP); Natural History Museum, Tring (NHM); University Museum of Zoology, Cambridge, UK (UMZC); and Museum d'Histoire Naturelle, Paris (MNHN). I was provided with details of *Atlapetes* specimens held at all other collections holding Colombian birds by Project Biomap. James Dean and Andrés Cuervo inspected specimens at the only other museums in which Antioquian *A. schistaceus* are found: the Smithsonian Institution, Washington DC (NMNH) and Museo del Colegio San José, Universidad de la Salle, Medellín, Colombia (MCSJ) respectively. Specimens consulted are listed in Donegan & Huertas (2006), with the addition of all NHM material of southern grey *Atlapetes* taxa: *A. nationi*, *A. seebhomi*, *A. seebhomi simonsi*, *A. leucopterus*, *A. schistaceus taczanowskii*, *A. rufigenis* and *A. forbesi*, and MCSJ specimens discussed further below.

Three specimens labelled *Atlapetes schistaceus* (Slaty Brush Finch), probably all collected at a Universidad de la Salle retreat called La Lana, near San Pedro de los Milagros, in the northern Central Andes of dpto. Antioquia, are clearly not of that species. Although sharing the greyish plumage of *A. schistaceus*, they exhibit a reduced moustachial stripe and have a paler mantle, underparts and crown.

Jorge Avendaño, Blanca Huertas and I conducted four days of field work at La Lana in January 2007. We erected up to 18 mist-nets in the largest remnant forest in the vicinity and made observations using playback of *Atlapetes* in other habitats and at other elevations (2,500–2,800 m). Andrés Cuervo spent one day searching the area in September 2006 and Juan David Ramírez made further visits in 2006. None of these searches, nor other observations in the Medellín region by SAO observers over the last two decades (SAO 2003), have resulted in any observations of the undescribed taxon. However, multiple observations and one mist-net capture of Rufous-naped Brush Finch *A. latinuchus elaeoprorus* and an observation of Slaty Brush Finch *A. s. schistaceus* were made. These two species are also found in 20th century La Lana collections.

Description of new species

A. schistaceus was described from early Bogotá skins by Boissoneau (1840). It remains rather common in the hills overlooking Colombia's capital (ABO 2000) and the nominate subspecies also occurs in the Central and West Andes (Paynter 1972). Other subspecies of *A. schistaceus* in Colombia are found in the Tamá massif, on the Colombian/Venezuelan border (*tamae*), and the Perijá Mountains (*fumidus*). The description of *A. schistaceus* is of a bird with strong moustachial markings (Boissoneau 1840). The two other subspecies, in the north-east of the country, share the same facial pattern, but differ in mantle and crown plumage darkness, lack of a speculum and in having more extensive black on the forehead. Of the two forms labelled *A. schistaceus* in Colombian museums, it is therefore the pale Antioquia population that is undescribed. Given recent findings of genetic differences, morphological variation and lack of intergradation between allopatric and sympatric

Atlapetes populations in the Andes (see below), a hitherto undescribed species is clearly involved. I propose to name it:

***Atlapetes blancae* sp. nov.**
Antioquia Brush Finch
Gorrión-Montés Paisa

Type specimens.—Holotype.—ICN 19015, unsexed and undated, collected at San Pedro, Antioquia, from the collection of Hermano Daniel and labelled ‘*A. schistaceus* subsp.’, with no further data (Fig. 3). Paratypes.—1. MCSJ 0242, an adult male collected by Hermano Marco Antonio Serna, at San Pedro, Antioquia, on 10 June 1971. 2. MLS 7553, also from ‘Antioquia’ (unsexed, undated, no further locality or collection details). Serna’s handwritten notes state that the MSCJ skin had ‘very developed testicles’ and thus is apparently an adult male. The MLS skin is labelled ‘*A. schistaceus* joven’ (young). However, no ossification data are presented and this assignment may have represented an attempt to explain its different plumage from *A. schistaceus*. It is probable that all three types were collected near Universidad de la Salle’s seminary outside San Pedro de los Milagros in the Central Andes of dpto. Antioquia.

Diagnosis.—The new species is a typical large nine-primaried finch of the genus *Atlapetes*, sharing certain characters with *A. schistaceus*, including overall greyish plumage, a rufous crown and (narrow) moustachial stripe (Paynter 1972, 1978). It differs from all *A. schistaceus* taxa in its paler grey back, underparts and flanks, weaker moustachial stripe, paler and broader band of rufous in the crown, greyish not white supraloral markings, longer culmen and, from some subspecies (including populations of *A. schistaceus* in Antioquia), by the lack of contrast between the throat and rest of the underparts.

A. blancae is distinguished from the subspecies of *A. latinuchus* in the region (*A. l. elaeoprurus*) by its greyish (not yellow) underparts and supraloral markings, paler grey back and paler rufous crown. It differs from White-winged Brush Finch *A. leucopterus* taxa by its longer wings and tail, darker rufous crown, more uniform grey underparts (less contrasting melanism on the flanks), lacking or reduced white wing speculum and from individuals of some subspecies in lacking black on the forehead or white patches on the head. *A. leucopterus* occurs in northern Peru and throughout Ecuador, and is apparently spreading slowly north (Ridgely & Greenfield 2001), but has yet to be recorded in Colombia (Salaman *et al.* 2007a).

A. blancae can be separated from its congeners in the Central Andes—Dusky-headed Brush Finch *A. fuscoolivaceus*, Yellow-headed Brush Finch *A. flaviceps* and White-throated Brush Finch *A. albinucha*—by its rufous crown patch, lack of yellowish tones and monochrome wings, body and tail. No *Atlapetes* found to date in Colombia closely resembles *A. blancae* in plumage.

A. blancae superficially resembles various other grey southern *Atlapetes* species (in addition to *A. leucopterus*). It differs from Rufous-eared Brush Finch *A. rufigenis* and Apurímac Brush Finch *A. forbesi* of Peru in having only the crown (not other parts of the head) rufous, weaker moustachial and supraloral markings, and greyer underparts; from Rusty-bellied Brush Finch *A. nationi* and Bay-crowned Brush Finch *A. seebhomii* in its paler crown (except *A. s. simonsi*), lack of rufous in the vent, greyer underparts (except *A. nationi*) and lack of black chin or strong moustachial; and from Pale-headed Brush Finch *A. pallidiceps* and White-headed Brush Finch *A. albiceps* by its lack of white on the face and red crown, amongst other features.

Description of the holotype.—Capitalised colour nomenclature and numbers herein follow Munsell Color (1977, 2000). Crown uniform rufous (closest to 2.5YR 3/6 but paler) with no dark markings on forehead, and not strongly demarcated, with some rufous feathering on the upper mantle. (Such demarcation of the crown and mantle is individually variable in several *Atlapetes*: Vellinga *et al.* 2004, Huertas & Donegan 2006.) Mask jet black (not coded), with ear-coverts greyish (Gley 1 4/N). Mantle, wing-coverts and alula grey, tinged brownish (7.5YR 3.5/1), flight-feathers and rectrices darker dorsally (7.5YR 2.5/1), with concealed white (Gley 1 8/1) speculum at base of pp4–6, extending to just below tip of greater coverts. Underparts pale grey (Gley 1 7/N), washed slightly darker on flanks (Gley 1 5/N), with darkish but indistinct moustachial extending *c.* 15 mm from base of bill (closest to Gley 1 3/N). Short but relatively broad line or crescent of pale grey (Gley 1 7/N) feathering on supraloral (broadly similar in size and extent to *A. l. elaeoprurus*; *cf.* larger supraloral spot in *A. schistaceus*). Bill and tarsus apparently dark horn, as in congeners. Relatively deep emarginations on at least pp8–5 (from innermost, following Proctor & Lynch 1993), but in wing moult, thus difficult to determine. Fresh outermost primaries, 9, 8 (almost fully emerged) 7 and emergent 6. Measurements (mm): wing chord 75; tail 74; tarsus 26.0; culmen (from tip of upper mandible to skull) 15.0. The brownish tones, shorter culmen compared to the paratypes and wing moult suggest a subadult moulting to adult plumage. Brownish and greenish tones are features of the mantle of juveniles or subadults of other northern *Atlapetes*, e.g. *A. latinuchus yariguierum* and *A. l. elaeoprurus* (Donegan & Huertas 2006). Holotype status is assigned to the ICN skin due to the superior type specimen collection and curation facilities at ICN, despite the holotype being not fully adult and the less complete locality data and lack of collection date. There can be little doubt that all three skins originate from the same ‘San Pedro’ and no doubt that they are of the same species.

Variation in the series.—MCSJ 0242 has a white speculum, formed by basal markings to pp4–7, which are less broad than in *A. s. schistaceus*, *A. l. elaeoprurus* or *A. leucopterus*. No brownish tones are present on the underparts, except a wash to the throat. The mantle appears from photographs to be darker (slate) grey than the



Figure 1. Plate by Robin Restall of (top to bottom) *Atlapetes latinuchus elaeoprorus* adult (left) and juvenile (right); *A. blancae* sp. nov. adult (left) and juvenile (right); and *A. schistaceus schistaceus* adult (left) and juvenile (right).



Figure 2. *A. blancae* paratype (MLS 7553) (T. M. Donegan)



other specimens. A few scattered rufous feathers are present over the grey supraloral. Measurements (mm): wing-chord 79, tail 77, tarsus 24.2, culmen 17.8. MLS 7553 differs from the holotype in having no strong brownish tones to the back or underparts, except a few markings in the moustachial area (Fig. 2). It lacks a white speculum. Measurements (mm): wing-chord 79; tail 78; tarsus 27.0; culmen 16.0. The overall less brownish tones of the paratypes and larger size suggest they are adults, and the holotype a subadult. Probable age-related variation in mantle coloration, similar to that shown here, is evident in various *A. latinuchus* taxa (Donegan & Huertas 2006). The presence of a speculum on just one of the specimens is intriguing. Individual and inter-population variation in speculum size also occurs in *A. latinuchus spodionotus* (Paynter 1972, Vellinga *et al.* 2004), and in a contact zone between *A. schistaceus tamae* and *A. s. schistaceus* (Donegan & Huertas 2006).

Remarks.—The three *A. blancae* specimens appear unlikely to represent an undescribed plumage of any known species. No *Atlapetes* is known to be strongly sexually dimorphic and the immature plumages of all species present in the northern Central Andes have been described. For example, juvenile *A. l. elaeoprorus* is similar to adults, but has greenish-olive tones on the back (Donegan & Huertas 2006). The hypothesis that *A. blancae* could represent juvenile *A. s. schistaceus* can be discounted as the MCSJ paratype is an adult male in breeding condition. Juvenile or subadult *A. s. schistaceus* in collections ($n=11$ of 87 skins examined), including from the East, Central and West Andes, are essentially similar to adults, but exhibit dark breast and belly streaking (Figs. 1 and 3; Restall *et al.* 2006), quite different from *A. blancae*.

Geographical variation in *A. schistaceus* cannot account for the plumage of *A. blancae*. No significant morphological differences, beyond average size and, possibly, some darkening of the crown and mantle in the Central and West Andes, are evident in *A. schistaceus*. Chapman (1917) noted that ‘specimens [of *A. schistaceus*] from the Western and Central Andes average slightly larger than those from the Eastern’, a proposition weakly supported by data presented herein (Appendix), but declined to describe any further subspecies within *A. s. schistaceus* due to the minor nature of any such variation.

Hybridisation between *A. l. elaeoprorus* and *A. s. schistaceus*, the other congeners known from the type locality, is improbable given the existence of three specimens and that *A. blancae* shows plumage features not found in either of those taxa (particularly its crown and mantle plumage, and speculum size). Similar

Figure 3 (opposite page). Dorsal and ventral views of, left to right: *A. latinuchus elaeoprorus* (ICN 20169; San Antonio de Piedras, Antioquia, April 1967); *A. blancae* holotype (ICN 19015); *A. s. schistaceus* (ICN 26220; Central Andes, Parque Nacional Natural Nevado del Huila, Paéz, Cauca, 31 October 1980); *A. s. schistaceus* (ICN 35012; West Andes, Paramillo National Park, Antioquia, 8 July 2004); *A. s. schistaceus* juvenile (ICN 22322; East Andes, Choachí, Cundinamarca, 27 May 1974) (T. M. Donegan)

principles suggest that *A. blancae* does not represent an undescribed colour morph of *A. schistaceus* or *A. latinuchus*. Neither a simple yellow to grey pigmentation switch (from *A. l. elaeoprurus*) nor a reduction in the moustachial marking (from *A. s. schistaceus*) could explain all of the morphological features exhibited by *A. blancae*. Surveys in the type locality region did not reveal any unusual plumages amongst *A. l. elaeoprurus* or *A. s. schistaceus*, nor are such aberrations evident in specimens from any region.

The description of a taxon based on three specimens without vocal or molecular data might be considered controversial. However, no other plausible hypothesis could explain the three specimens discussed herein. Evidence to recognise *A. blancae* appears equal to or stronger than that for other recently described and widely recognised species based on no or few field data, e.g. Bogotá Sunangel *Heliangelus zusii* (Graves 1993), Parker's Antbird *Cercomacra parkeri* (Graves 1997; since studied in the field) and Nechisar Nightjar *Caprimulgus solala* (Safford *et al.* 1995).

Distribution and conservation.—The collection locality of all three *A. blancae* specimens is probably close to Universidad de la Salle's seminary at La Lana, vereda Llano de Ovejas, near San Pedro de los Milagros, Antioquia, which is listed in Paynter & Traylor (1981) as 'La Lana': 06°23'N, 75°37'W. Over the past century, the Catholic brothers of Universidad de la Salle have maintained a small country retreat, principally for cattle farming and religious meetings, but with a few hectares of forest and second growth. Llano de Ovejas is a small plateau, at 2,400–2,800 m. The surrounding region has been largely converted to pasture for milk production and commercial flowers though various small forest fragments (c.5–10%) remain. One of the largest remnants is on a small ridge in the centre of the plateau, at c.2,650–2,800 m, and is protected as a watershed by Sr. José Leon, CORANTIOQUIA, the municipality of San Pedro de los Milagros and Universidad del Salle. This patch was the main focus of our field work but no *A. blancae* were found there.

A. latinuchus elaeoprurus, *A. s. schistaceus* and *A. albinucha* also occur in the northern Central Andes in Antioquia (Hilty & Brown 1986, Ridgely & Tudor 1989, Fjeldså & Krabbe 1990, Remsén & Graves 1995, Cuervo *et al.* 1999, Donegan & Salaman 1999, SAO 2003, Donegan & Huertas 2006). The two former taxa were found at La Lana during recent field work and are represented in mid-20th century collections from the type locality (MLS and MCSJ). *A. l. elaeoprurus* is not uncommon in forest, forest borders and scrub at 2,550–2,780 m in La Lana and occurs at lower elevations in the adjacent Valle de Aburrá above Medellín (SAO 2003). *A. schistaceus* was observed only at 2,800 m at La Lana and occurs only at high elevations in the region, with specimens from Santa Rosa de Osos and La Lana (Remsén & Graves 1995, MLS, MCSJ and NMNH specimens). *A. albinucha* occurs at lower elevations (generally below 2,200 m) in the wider region (Remsén & Graves 1995, Cuervo *et al.* 1999, Donegan & Salaman 1999, SAO 2003).

Remsen & Graves' (1995) data on *Atlapetes* distributions from the northern section of the Central Andes suggest a gap at premontane elevations on both slopes between 1,500 m and 2,500 m, above which *A. schistaceus* and *A. latinuchus elaeoprurus* occur and below which *A. albinucha* is found. However, we now know that *A. albinucha* occurs at higher elevations and *A. l. elaeoprurus* lower than Remsen & Graves (1995) indicated (SAO 2003), thus *A. blancae* does not completely fill this 'gap'. Elevational replacements appear less strongly marked in the genus *Atlapetes* in secondary habitats. For example, up to three *Atlapetes* occur at the same site, at 2,000 m, in Serranía de los Yariguíes in the East Andes (Donegan *et al.* 2007). Various other, more plausible, hypotheses for the status and distribution of *A. blancae* emerge: (1) *A. blancae* persists at La Lana but is rare or occurs only in microhabitats not studied to date. Rapid assessment field work of the type undertaken at La Lana in other localities has produced records of >90% of resident species found during subsequent longer term ProAves projects (93 bird species being recorded in our La Lana study), and such projects led to the description of various other new bird taxa (e.g. Cuervo *et al.* 2001, Salaman *et al.* 2003, Donegan & Huertas 2006). Various local people, amongst them amateur bird enthusiasts, identified *A. latinuchus* from plates and one—who took us to the site of our observation of the species—identified *A. schistaceus*, but no-one recognised our photographs of *A. blancae* specimens. Therefore, whilst searches should continue in this region, other hypotheses as to distribution should be considered. (2) *A. blancae* occurs nearby, but not at, La Lana. For instance, *A. schistaceus* was observed only at 2,800 m at La Lana, c.1 hour's walk from the seminary, where it was uncommon, but is represented by a specimen from the region, suggesting that 'San Pedro' and 'La Lana' specimens may have been collected over a wider area than merely the seminary grounds. The páramos north-west of San Pedro and valleys to the north merit additional searching. (3) Given the extent and recent nature of deforestation in the environs of the type locality, and presence of *A. latinuchus elaeoprurus* in all secondary and forest border habitats, it is possible that *A. blancae* is locally extinct. By way of analogy, Pale-headed Brush Finch *A. pallidiceps* went undetected for many years despite specific searches, but was eventually rediscovered (Agreda *et al.* 1999). Hopefully, *A. blancae* will also be found again.

A. blancae is best categorised as Critically Endangered under category D1, with a precautionary population estimate of <50 mature individuals, consistent with other bird species on the IUCN Red List for which no population is known, threats are intense, but hope remains for survival (S. H. M. Butchart *in litt.* 2007).

Etymology.—The new species is dedicated to my beloved wife, Blanca Huertas, whose first name is formed as a first declension Latin feminine noun and declined in the genitive singular for the epithet. Blanca's companionship in the field and museum, as well as fund-raising, have contributed in no small part to the present work; this description also honours her contributions to Colombian lepidopterology, conservation and education.

The name 'Antioquia' refers to the region where the new species is found. Following English name guidelines developed by Gill & Wright (2006), the alternative adjectival form 'Antioquian' is not available due to current usage of Antioquia Bristle Tyrant for *Phylloscartes lanyoni*. The Spanish name 'Paisa' is used in Colombia to describe people and places of Antioquia, the provenance of *A. blancae*.

The proposed name *A. blancae* coincidentally alludes to the new species' distinctive plumage character, its overall paler plumage compared to *A. schistaceus*. 'Blanca' is Spanish for 'white' in the feminine form, though this root is not the etymology of the name *blancae*.

Discussion

Although its overall greyish plumage might suggest that *A. blancae* is related to *A. schistaceus* following Paynter (1978), it might be more closely related to taxa in the yellow-breasted *A. latinuchus* complex or White-winged Brush Finch *A. leucopterus*. Morphological analyses (Paynter 1972, 1978) held *A. schistaceus* and *A. rufinucha* (including *A. latinuchus*) to be delimited largely by the presence of grey or yellow underparts. However, Remsen & Graves (1995) suggested that various geographically close taxa with alternating grey and yellow underparts are more closely related to one another than to more geographically distant taxa with similar underparts, a hypothesis with some molecular support (García-Moreno & Fjeldså 1999).

Very conservatively and following flawed past taxonomic treatments for the genus (e.g. Paynter 1978), *A. blancae* could be considered a subspecies of *A. leucopterus*, which it resembles superficially in plumage and which has an allopatric but distant distribution. However, biometric differences between the northernmost, nominate subspecies of *A. leucopterus* and *A. blancae* are substantial (Appendix: *A. leucopterus* being an unusually small *Atlapetes*: Paynter 1972, Fitzpatrick 1980), whilst the ranges of the two are separated by over 600 km, suggesting long-term isolation. *A. blancae* and *A. leucopterus* are probably not closely related. Rather, parapatric or sympatric *Atlapetes latinuchus elaeoprurus* would appear more likely to be *A. blancae*'s closest relative.

A. l. elaeoprurus and *A. blancae* differ in just two of the morphological characters used in Donegan & Huertas' (2006) phylogenetic analysis of *Atlapetes*: absence/presence of grey plumage on underparts and extent of white speculum (visible/none or vestigial). *A. s. schistaceus* and *A. blancae* differ in breadth of moustachial stripe; presence/absence of paler feathering on the throat; and size of supraloral spot (three characters). *A. blancae* differs from nominate *A. leucopterus* in the size of the speculum and melanism of the flanks (two characters, plus apparently diagnosable tail- and wing-lengths). Other differences between *A. blancae* and these sympatric or parapatric species, e.g. crown and mantle colour, and biometrics, were not coded by Donegan & Huertas (2006) due to assumed non-discrete variation in the taxa studied therein.

Examining first differences from *A. l. elaeoprorus*, the switch from grey to yellow underparts among *Atlapetes* species has apparently occurred multiple times in the Andes (Remsen & Graves 1995, García-Moreno & Fjeldså 1999), whilst speculum size varies among some *Atlapetes* populations and is rather plastic (Donegan & Huertas 2006). Conversely, moustachial and supraloral differences, such as those between *A. blancae* and *A. s. schistaceus* represent principal differences between some current and proposed species-level taxa (Donegan & Huertas 2006). That *A. blancae*'s plumage is broadly similar to *A. leucopterus* of Ecuador could reflect a parallel grey / yellow plumage switch in different regions.

A. blancae is described at species level on the basis of: three specimens which discount other possible hypotheses; its substantial morphological differences from sympatric or parapatric *Atlapetes* in the region; disjunct range from *A. leucopterus* and biometric differences; and lack of evidence of intergradation with sympatric or parapatric taxa. The apparent presence of *A. blancae*, *A. schistaceus* and *A. l. elaeoprorus* at the same locality (at least until the 1970s) suggests that all could be treated specifically under a modern Biological Species Concept (Helbig *et al.* 2002), and thus most or all other species concepts in current use.

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APPENDIX: Biometric data for certain *Atlapetes* taxa

Data were taken from museum specimens by the author, updated from Donegan & Huertas (2006), with *A. blancae* removed from *A. schistaceus* and some additional specimens included. Data on *A. leucopterus dresseri* and *A. l. paynteri* are taken directly from Fitzpatrick (1980) due to lack of specimens at the museums visited, with bill-length data excluded as a different measurement was used. For all taxa except those mentioned above, data are presented in the form mean \pm standard deviation (sample number). For *A. leucopterus* data based on Fitzpatrick (1980), no standard deviation data are available.

Taxon	Sex	Wing-chord (mm)	Tail (mm)	Tarsus (mm)	Bill (to skull) (mm)	Mass (g)
<i>A. blancae</i>	all	77.7 \pm 2.3 (75.0–79.0) (3)	76.3 \pm 2.1 (74.0–77.0) (3)	25.7 \pm 1.4 (24.2–27.0) (3)	16.3 \pm 1.4 (15.0–17.8) (3)	–
<i>A. latinuchus elaeoprorus</i>	all	75.9 \pm 3.7 (69.0–81.0) (10)	73.7 \pm 4.4 (67.0–80.0) (11)	27.1 \pm 0.7 (26.0–28.0) (11)	15.9 \pm 0.5 (15.0–16.5) (12)	28.9 \pm 1.3 (27.5–30.3) (2)
	males	75.5 \pm 3.5 (73.0–78.0) (2)	74.5 \pm 2.1 (73.0–76.0) (2)	27.0 \pm 0.0 (27.0–27.0) (3)	16.2 \pm 0.3 (16.0–16.5) (3)	27.5 \pm 0.0 (1)
	females	72.5 \pm 4.9 (69.0–76.0) (2)	69.0 \pm 2.8 (67.0–71.0) (2)	26.5 \pm 0.7 (26.0–27.0) (2)	16.0 \pm 0.7 (15.5–16.5) (2)	–
<i>A. s. schistaceus</i>	all	75.5 \pm 3.3 (68.0–83.0) (80)	77.5 \pm 4.5 (69.0–87.0) (81)	26.8 \pm 0.9 (25.0–28.5) (82)	15.0 \pm 0.6 (13.5–16.5) (80)	28.2 \pm 2.6 (23.5–34.0) (11)

	males	78.0 ± 2.2 (74.0–83.0) (26)	80.3 ± 3.0 (75.0–86.0) (25)	27.0 ± 0.7 (26.0–28.5) (25)	15.0 ± 0.5 (14.0–16.0) (23)	28.5 ± 1.3 (27.0–30.0) (4)
	females	74.3 ± 2.6 (69.0–79.0) (28)	76.4 ± 3.4 (69.0–82.0) (27)	26.7 ± 0.8 (25.5–28.0) (29)	15.2 ± 0.7 (14.0–16.5) (30)	–
<i>A. s. schistaceus</i> West Andes	males	80.0 ± 1.7 (78.0–81.0) (3)	83.2 ± 1.3 (82.0–84.5) (3)	27.0 ± 0.5 (26.5–27.5) (3)	15.3 ± 0.8 (14.5–16.0) (3)	30.0 ± 0.0 (1)
<i>A. s. schistaceus</i> Central Andes	all	75.6 ± 1.5 (73.0–78.0) (8)	78.2 ± 2.6 (74.5–82.0) (8)	26.4 ± 1.1 (24.5–27.5) (6)	15.0 ± 0.7 (14.0–16.0) (6)	28.3 ± 0.4 (28.0–28.5) (2)
	males	76.5 ± 2.1 (75.0–78.0) (2)	78.5 ± 2.1 (77.0–80.0) (2)	27.0 ± 0.0 (1)	14.5 ± 0.0 (1)	–
	females	75.0 ± 2.0 (73.0–77.0) (3)	78.7 ± 3.5 (75.0–82.0) (3)	25.8 ± 1.3 (24.5–27.0) (3)	15.0 ± 1.0 (14.0–16.0) (3)	–
<i>A. s. schistaceus</i> East Andes	all	76.1 ± 3.1 (68.0–83.0) (46)	78.7 ± 3.7 (72.0–87.0) (45)	26.8 ± 0.8 (25.0–28.5) (48)	15.1 ± 0.5 (14.0–16.0) (46)	28.0 ± 3.0 (23.5–34.0) (8)
	males	78.0 ± 2.2 (74.0–83.0) (20)	80.2 ± 3.2 (75.0–86.0) (19)	27.0 ± 0.8 (25.5–28.5) (20)	15.0 ± 0.5 (14.0–15.5) (18)	28.0 ± 1.0 (27.0–29.0) (3)
	females	74.6 ± 2.4 (71.0–78.0) (19)	76.7 ± 2.9 (72.0–82.0) (18)	26.5 ± 0.6 (25.5–28.0) (20)	15.2 ± 0.7 (14.0–16.5) (21)	27.8 ± 5.5 (23.5–34.0) (3)
<i>Atlapetes leucopterus leucopterus</i>	all	66.5 ± 2.5 (62.0–71.0) (10)	59.8 ± 4.4 (55.0–65.0) (10)	25.8 ± 1.6 (23.0–27.5) (10)	15.6 ± 0.8 (14.5–17.0) (10)	–
<i>Atlapetes leucopterus dresseri</i>	males	65.5 (62.5–69.0) (12)	64.5 (61.0–69.0) (12)	24.4 (23.5–25.8) (12)	–	22.9 (20.7–26.0) (7)
	females	62.7 (57.5–65.0) (10)	62.3 (58.0–66.5) (10)	24.2 (23.3–24.7) (10)	–	22.5 (19.0–26.1) (7)
<i>Atlapetes leucopterus paynteri</i>	males	69.7 (67.5–72.0) (5)	72.0 (68.5–76.5) (5)	25.5 (25.0–26.3) (5)	–	24.6 (23.0–26.5) (4)
	females	66.8 (66.5–67.0) (2)	69.5 (68.2–70.8) (2)	25.8 (25.0–26.5) (2)	–	25.4 (25.0–25.8) (2)

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Stabilising the nomenclature of Australasian birds by invalidation and suppression of disused and dubious senior names

by Richard Schodde, Walter J. Bock & Frank Steinheimer

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In attempting to accept or reject 19 disused names for Australian birds, McAllan (2007) has made serial errors and omissions of fact, interpretation and procedure that, if not corrected promptly, will disrupt the nomenclature of the taxa involved. McAllan's actions are based on Art. 23.9, 'reversal of precedence', of the current